Loading Multiple Hierarchies

Applies to:
SAP BI 7.0. For more information, visit the Business Intelligence homepage.

Summary
This paper demonstrates how to load Multiple Hierarchies using one Info Package. This can be done with the help of ABAP using BAPIs.

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Overview
To load data into a Hierarchy, we need to create an info package to pull the data from the source system. But when we have to load many hierarchies, creating an info package for each hierarchy become a tedious job. To ease this process, with the help of ABAP, we can load multiple hierarchies using just one info package.

This paper provides the ABAP code to achieve the same and also a step by step guide to load multiple Hierarchies.

Code

```
* Data Declaration *
DATA: Z_HIER_PAR TYPE BAPI6109HIE.
DATA: Z_RETURN TYPE BAPIRET2 OCCURS 0,
  Z_RSOSOHIE TYPE RSOSOHIE OCCURS 0 WITH HEADER LINE.
* Field Symbols Declaration *
FIELD-SYMBOLS: <FS> LIKE LINE OF Z_RSOSOHIE.
SELECTION-SCREEN: SKIP 1.
* Parameters Declaration *
PARAMETERS: DTSOURCE(30) TYPE C OBLIGATORY,
  IPAK(30) TYPE C OBLIGATORY.

* Select all the Hierarchies from RSOSOHIE based on the data source *
SELECT HIENM HIEVERS HIEDATETO HIEDATEFROM HIECLASS FROM RSOSOHIE
  INTO CORRESPONDING FIELDS OF TABLE Z_RSOSOHIE
  WHERE OSOURCE = DTSOURCE
  AND OBJVERS = 'A'.

* Execute the selected Hierarchies one by one with a 10 Second delay *
LOOP AT Z_RSOSOHIE ASSIGNING <FS>.
  CLEAR Z_HIER_PAR.
  Z_HIER_PAR-HIENM = Z_RSOSOHIE-HIENM.
  Z_HIER_PAR-HIEVERS = Z_RSOSOHIE-HIEVERS.
  Z_HIER_PAR-HIEDATETO = Z_RSOSOHIE-HIEDATETO.
  Z_HIER_PAR-HIEDATEFROM = Z_RSOSOHIE-HIEDATEFROM.
  Z_HIER_PAR-HIECLASS = Z_RSOSOHIE-HIECLASS.
  * Execute BAPI BAPI_IPAK_CHANGE (Changes an Existing Info Package) *
  CALL FUNCTION 'BAPI_IPAK_CHANGE'
    EXPORTING INFOPACKAGE = IPAK
    Z_HIE_PARAM = Z_HIER_PAR
    TABLES RETURN = Z_RETURN.
  IF sy-subrc = 0.
  * Execute BAPI BAPI_IPAK_START (Schedules an Info Package) *
    CALL FUNCTION 'BAPI_IPAK_START'
    EXPORTING INFOPACKAGE = IPAK
    TABLES RETURN = Z_RETURN.
    IF sy-subrc = 0.
      WAIT UP TO 10 SECONDS.
      ENDIF.
  ENDIF.
ENDLOOP.
```
Note:
The program loads all the hierarchies and it sleeps after every hierarchy load for 10 seconds so that it does not consume all the processes. This is an efficient way of loading when you have to load hundreds of hierarchies.

Step by Step Guide
1. Log on to SAP and execute the Transaction RSA1.
2. Create an Info Package.
3. In the ‘Hierarchy Selection’ tab, click the button of "Available Hierarchies from OLTP". This will display all the hierarchies available.

4. Select the ones for which you want to load data in the option "Relevant for BW" and save the Info Package.
5. Execute the transaction SE38.
6. Create a new Program.

7. Enter the Description in the following screen:
8. Copy and Paste the Code in your program.
9. Activate the program and click on execute. Now you will have to insert the technical name of Data Source where the Info Package is created and the technical name of the Info Package.
Related content

Hierarchies
Creating Hierarchies
Hierarchy Properties
Loading Hierarchies

For more information, visit the Business Intelligence homepage.
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